

Appl. No. 10/509,457

Amdt. Dated March 15, 2006

Reply to Office Action of December 15, 2005

Listing of Claims:

1. (Previously Presented) A method of determining a corresponding image for a reference image from an image sequence of a moving object by means of a first and a second motion signal, in which

- the first and the second motion signal represent the respective variation in time of the states of motion of a first motion and a second motion of the object,

- the image sequence represents the first motion of the object as a sequence of images of states of motion,

- the reference image represents a state of motion from the second object motion and is acquired at a reference instant during the second motion of the object, including the following steps:

a. determining a similarity function by way of a similarity comparison of the first and the second motion signal,

b. determining a correspondence instant in the first motion signal by means of the similarity function, the correspondence instant corresponding to the acquisition instant of the reference image from the second motion signal,

c. determining, using the first motion signal, that image of the image sequence whose acquisition instant corresponds at least approximately to the correspondence instant.

2. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ the similarity function is obtained by means of the so-called dynamic time warping method.

3. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ an interpolation image is formed from the corresponding image and a further image from the image sequence, which interpolation image represents at least substantially the state of motion of the object at the correspondence instant.

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4. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ the first and the second motion signal from an electrocardiographic signal and that the images of the image sequence and the reference image represent states of motion of a human or animal heart.

5. (Currently Amended) A method as claimed in claim 4, ~~characterized in that wherein~~ the blood vessels of the heart are filled at least partly with a contrast medium either in images of the image sequence or in the reference image.

6. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ the image sequence forms an X-ray image sequence and/or the reference image forms an X-ray image.

7. (Currently Amended) A method as claimed in claim 1, ~~characterized in that wherein~~ the image sequence and/or the reference image forms an ultrasound image.

8. (Previously Presented) A system which includes a data processing unit for determining a corresponding image of a moving object for a reference image from an image sequence by means of a first and a second motion signal, the data processing unit being arranged to carry out a method as claimed in claim 1.

9. (Previously Presented) An examination apparatus which includes an X-ray image detector and means for the detection of electrocardiographic signals, which apparatus includes a system as claimed in claim 8.

10. (Currently Amended) ~~A computer program or computer program product which is arranged to cooperate with a data processing unit in such a manner that the data processing unit is capable of~~ A computer-readable storage medium storing a program for causing a computer to perform having instructions for carrying out a method as claimed in claim 1.